

BARBARA ANN
KARMANOS
CANCER INSTITUTE

Wayne State University

Testimony in Support of House Bills 6291, 6292, 6293 and 6295

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Since 2001, Karmanos Cancer Institute has been privileged to house the J.P. McCarthy Cord Stem Cell Bank, one of only fourteen cord blood banks in the country listed with the National Marrow Donor Program. The use of cord blood for transplantation and research will make a significant impact on the survival rate of individuals afflicted with diseases that were previously considered to be terminal. Unlike stem cell transplantation from other sources, such as bone marrow, the stem cells in cord blood can be suitable for transplantation in patients even if there is a minor mismatch between donor and recipient. This unique ability is due to the immaturity of the cells in cord blood.

One of the prominent features of the J.P. McCarthy Cord Blood Stem Cell Bank is that it was established to address the needs of the underserved ethnically diverse population. The pool of donors in the National Marrow Donor Program is predominantly from Caucasians. This is also true for cord blood. The Caucasian match rate for transplantation is roughly 70% due to its homogenous composition. The African-American match rate is under 50%. As a result, there is a need to expand the pool of African-American and other diverse donors; one of the approaches to achieve this is to store cord blood, which has wider applicability for transplantation.

Karmanos Cancer Institute currently receives 35 bankable units per month of cord blood, but passage of this legislation will significantly increase this number. For every bankable cord blood unit, meaning it can be used for treatment; there are generally four units not suitable for transplantation. These units are made available for laboratory research. An increase in cord blood donations means greater access to treatment, improved outcomes for patients and the ability to conduct state-of-the-science research that will lead to cures for certain cancers and other genetic diseases.

Many hospitals have expressed an interest in participating in the cord blood donation process, but lack of funding has prevented education, awareness and participation. We have developed a community outreach program that will provide education to obstetricians and other health care providers throughout Michigan. We are addressing other barriers to cord blood donations with our outreach. These include lack of awareness, mistrust of the healthcare system, religious beliefs and cultural norms.

House Bills 6291, 6292, 6294 and 6295 will improve treatment, advance research, and most importantly, SAVE LIVES. Thank you for your consideration of this legislation. Karmanos Cancer Institute looks forward to working with you to best serve the healthcare needs of the residents of Michigan.

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The Meyer L. Prentis Comprehensive Cancer Center of Metropolitan Detroit, operated by the Barbara Ann Karmanos Cancer Institute, is one of 39 National Cancer Institute-designated comprehensive cancer centers in the United States.

J.P. McCarthy Cord Blood Stem Cell Bank Facts and Figures

- Cord blood stem cells are not embryonic stem cells; therefore there is no ethical controversy about using cord blood stem cells for transplantation or research. In fact, the first cord blood transplantation was done more than 15 years ago.
- The total inventory in the world is approximately 240,000 units. Most of these units are in Europe. The total US inventory is approximate 75,000 units.
- There are 2 major registries in the US: National Marrow Program and The New York Cord Blood Bank, the inventory size of these registries are 50,000 and 25,000 units, respectively.
- There is a rapid increase in cord blood stem cell transplantation because of increasing success. The quality of the cord blood units is improving, thus may extend the application to older patients.
- Of all the unrelated stem cell transplantation done in African American patients in 2005, 25% of those patients received cord blood transplantation.
- Of the entire inventory of cord blood stem cell units in the National Marrow Donor Program (NMDP) 6.8% are African American. The JP McCarthy Cord Blood Stem Cell Bank inventory is 69% African American. We contribute 1/6 of the cord blood units in the NMDP inventory.
- From August 2003 through present, we have shipped 23 units of cord blood to other transplant centers as follows:
 - United States, 19 units (83%)
 - Spain, 2 units (9%)
 - Netherlands, 1 unit (4%)
 - France, 1 unit (4%)
- The racial diversity of cord blood units distributed by the JP McCarthy Cord Blood Stem Cell Bank are as follows:
 - African American, 16 units (70%)
 - Unknown race, 2 units (9%)
 - Caucasian, 2 units (9%)
 - Asian, 1 unit (4%)
 - Native American, 1 unit (4%)
 - African/Hispanic, 1 unit (4%).